

BIBLIOGRAPHY OF TOURISM PROJECTIONS  
FOR HAWAII ISSUED SINCE 1982

At least 79 sets of tourism projections have been published for the State of Hawaii or Island of Oahu since the end of World War II. Eight of these series have appeared since the compilation of the DBED's most recent bibliography in January 1983. 1/ That bibliography listed 13 reports published between 1977 and 1982. Seventeen studies released between 1969 and 1976 were cited in a 1976 bibliography. 2/ Twenty-one studies published between 1962 and 1969 were listed in a paper presented in 1969. 3/ Twenty still earlier efforts had been cited in a report published in 1962. 4/

In view of the continuing interest in such projections and their importance for State planning, the present report has been prepared to bring the four earlier compilations up to date. An exercise of this kind is particularly useful in providing insight into methodological and definitional problems and in underscoring the wide range of opinions regarding future trends in Island tourism. The present update is intended to serve as background research for an ongoing review of earlier DBED tourism projections, leading to their possible revision in the light of recent developments.

Attention in this bibliography is focused on projections and forecasts in five subject-matter areas: visitor arrivals, average daily visitor census, visitor expenditures, visitor accommodations, and hotel employment.

The underlying data used in these projections routinely come from two sources, the Hawaii Visitors Bureau (HVB) Research Department and Hawaii State Department of Labor and Industrial Relations (DLIR). Statistics on visitors arriving and staying overnight and longer have been compiled by the HVB since 1921. A similar series on average daily visitor census (that is, the average number of visitors present) has been published by the HVB since 1951. Annual estimates of visitor expenditures, likewise prepared by the HVB or its consultants, date back to 1922. The HVB visitor plant inventory has been compiled since 1967 and was later extended back to 1946. Annual statistics on hotel employment, compiled by the DLIR, are available back to 1939. These data are reported periodically in publications issued by the originating organizations and are summarized in The State of Hawaii Data Book. 5/

---

1/ Bibliography of Tourism Projections Issued Since 1976 (Statistical Report 158, January 21, 1983).

2/ Bibliography of Tourism Projections Issued Since 1969 (Statistical Report 117, November 12, 1976).

3/ "Forecasting Tourism in Hawaii," a paper presented by Robert C. Schmitt to the Hawaii Chapter, American Statistical Association, October 2, 1969 (pp. 11-21). Filed in the DBED Library.

4/ Hawaii State Department of Planning and Research, Visitor and Hotel Room Projections for Hawaii, 1948-1980 (Research Report 29, August 2, 1962).

5/ Hawaii State Department of Business, Economic Development & Tourism, The State of Hawaii Data Book 1990: A Statistical Abstract (November 1990), tables 186, 205, 349, and 693. For earlier data, see Robert C. Schmitt, Historical Statistics of Hawaii (1977), tables 11.7 (pp. 273-274) and 20.9 (pp. 530-531).

---

Methodological research has been limited to a few scholarly papers, notably those by Fujii and Mak, Geurts, and Schmitt. 6/

The eight studies issued since 1982 are listed below, and numbered in continuation of the earlier citations. Two tables, comparing the Statewide projections contained in these studies, follow the bibliography.

72. Hawaii State Department of Planning and Economic Development, Population and Economic Projections for the State of Hawaii, 1980-2005 (July 1984), p. 20. Contains projections of visitor arrivals, average visitor census, hotel employment, and visitor and crew expenditures, based on assumed growth rates and historical relationships. Values for selected years, 1982 (the base date) to 2005, were as follows:

Subject	1982 (est.)	1985	1990	1995	2000	2005
Visitor arrivals (1,000).....	4,243	5,000	6,083	7,052	7,786	8,183
Average visitor census (1,000)	105.0	124.0	155.6	179.0	197.6	207.7
Visitor and crew expenditures (millions of 1980 dollars)...	3,172	3,670	4,477	5,190	5,731	6,023
Hotel and condo units (1,000).	59.4	63.6	79.2	91.7	101.4	106.5
Hotel employment (1,000).....	26.5	28.3	31.8	35.0	36.9	37.1

73. Hawaii State Department of Business and Economic Development, Revised Long-Range Economic and Population Projections to 2010, State of Hawaii (Series M-K), Preliminary Report (January 1988). A preliminary revision of reference 72, based on similar methods and assumptions. Includes the following findings.

Subject	1985 (est.)	1990	1995	2000	2005	2010
Visitor arrivals (millions)...	4.9	6.6	7.8	9.0	10.2	11.6
Average visitor census (1,000)	116.7	161.7	190.0	217.7	244.9	277.1
Visitor and crew expenditures (millions of 1982 dollars)...	4.21	5.93	7.12	8.33	9.45	10.72
Hotel and condo rooms (1,000).	65.9	77.4	9.3	105.1	118.5	134.4
Hotel employment (1,000).....	30.5	34.6	38.0	41.1	43.5	46.0

---

6/ Edwin T. Fujii and James Mak, "Forecasting Tourism Demand; Some Methodological Issues," *Annals of Regional Science*, July

1981, pp. 72-82; Michael Geurts, "Forecasting the Hawaiian Tourist Market," *Journal of Travel Research*, Summer 1982, pp. 18-21; Robert C. Schmitt, "Forecasting Tourism in Hawaii," cited in footnote 2.

---

74. Hawaii State Department of Business and Economic Development, *Concepts, Analysis, Goals & Activities to Implement DBED's Strategic Plan/Tourism* (February 1988). Cites projections made by the DBED Research and Economic Analysis Division in August 1987, as follows:

Subject	1985 (est.)	1990	1995	2000	2005
Visitor arrivals (millions)...	4.9	6.4	7.6	8.8	9.9
Average visitor census (1,000)	116.7	157.1	184.5	221.5	237.9
Rooms.....	65.9	75.1	88.7	102.0	115.1
Expenditures (billions of 1988 dollars).....	3.8	5.2	6.2	7.3	8.3

75. Hawaii State Department of Business and Economic Development, *Population and Economic Projections for the State of Hawaii to 2010 (Series M-K)* (November 1988), p. 18. A revision of reference 73, based on the same methods and assumptions but taking more recent developments into account:

Subject	1985 (est.)	1990	1995	2000	2005	2010
Visitor arrivals (millions)	4,884	6,521	7,746	8,979	10,159	11,494
Average visitor census (1,000)	116.7	152.0	178.7	206.0	233.1	263.7
Visitor and crew expenditures (millions of 1982 dollars)	4,210	6,070	7,324	8,556	9,680	10,952
Hotel and condo units (1,000)	65.9	76.5	88.7	102.7	116.8	132.8
Hotel employment (1,000)	29.0	34.5	38.1	41.3	43.7	46.3

76. Juanita C. Liu, "Hawaii tourism to the year 2000. A Delphi forecast," *Tourism Management*, December 1988, pp. 279-290. An application of the Delphi technique to Hawaii tourism, using panels of local and outside experts and travel agents. The survey found that "both local and outside experts feel that seven to eight million visitors will be attained by the year 2000 with a likelihood of two out of three" (p. 282).

77. Bank of Hawaii, "A Forecast Poll on Hawaii's Economy in 1999," *Business Trends*, November-December 1989, pp. 3-4. Reports two sets of economic projections, one prepared by the Bank of Hawaii and presented by David Ramsour to the Bank's 1989 economic outlook conference, and the other based on a poll of 160 members of Hawaii's business community. The results were as follows:

Subject	Bank forecast		Group forecast, 1999
	1989	1999	
Visitor arrivals (1,000)	6,635	10,000	10,303
Westbound	4,691	6,800	6,746
Eastbound	1,943	3,200	3,351
Visitor expenditures (millions of 1989 dollars)	9,614	13,500	14,231

78. U.S. Bureau of Economic Analysis, BEA Regional Projections to 2040, Vol. 1, States (June 1990). On p. 125, presents estimates and projections of hotel employment for Hawaii, as follows: 1988, 37,700; 1995, 46,900; 2000, 52,200; 2005, 56,200; 2010, 58,900; 2020, 60,300; 2040, 61,400.

79. Hawaii State Department of Business, Economic Development & Tourism, "DBED Economic Forecast, December 1990," A revision of the projections in reference 75, planned for publication in DBED's Quarterly Statistical & Economic Report for the 4th quarter 1990. Table 2 indicates 6,968,800 visitor arrivals in 1990 and 8,156,800 in 1995. The corresponding projections of hotel employment (37,000 in 1989) were 38,300 for 1990 and 41,300 in 1995 (table 4).

Table 1.-- PROJECTIONS OF OVERNIGHT AND  
LONGER VISITORS: 1990 TO 2010

[In thousands]

Author and publication date	1990	1995	2000	2005	2010
28. DPED (1965)	6,640	...	...	...	...
58. Honolulu DGP (1976)	11,027	14,514	...	...	...
64. DPED State Plan (1977)	6,150	...	...	...	...
65. DPED II-F (1978)	6,432	7,456	7,836	...	...
66. DPED Tourism Study (1978)	5,882	7,506	...	...	...
67. Pham and Renaud (1979)	...	...	9,900	...	...
69. DPED Tourism Plan (1981)	6,410	...	...	...	...
70. DPED Tourism Plan Supp. (1982)	6,410	...	...	...	...
72. DPED M-F (1984)	6,083	7,052	7,786	8,183	...
73. DBED M-K prel. (1988)	6,600	7,800	9,000	10,200	11,600
75. DBED M-K rev. (1988)	6,521	7,746	8,979	10,159	11,494
76. Liu (1988)	...	...	(1/)	...	...
77. Bank of Hawaii (1989): 2/ Bank forecast	...	...	10,000	...	...
Group forecast	...	...	10,303	...	...
79. DBED (1990)	6,969	8,157	...	...	...
Actual number	6,971	...	...	...	...

Footnotes and source follow table 2.

Table 2.-- PROJECTIONS OF AVERAGE VISITOR  
CENSUS, HOTEL UNITS, AND HOTEL EMPLOYMENT:  
1990 TO 2010  
[In thousands]

Author and publication date	1990	1995	2000	2005	2010
Average visitor census:					
28. DPED (1965)	64.8	...	...	...	...
64. DPED State Plan (1977)	149.7	...	...	...	...
65. DPED II-F (1978)	149.3	173.0	181.8	...	...
69. DPED Tourism Plan (1981)	155.0	...	...	...	...
72. DPED M-F (1984)	155.6	179.0	197.6	207.7	...
73. DBED M-K prel. (1988)	161.7	190.0	217.7	244.9	277.1
75. DBED M-K rev. (1988)	152.0	178.7	206.0	233.1	263.7
Actual number	162.1	...	...	...	...
Hotel units: 3/					
28. DPED (1965)	50.3	...	...	...	...
62. Bank of Hawaii (1977)	68.0	...	...	...	...
64. DPED State Plan (1977)	89.7	...	...	...	...
65. DPED II-F (1978)	74.0	83.8	87.7	...	...
69. DPED Tourism Plan (1981)	81.3	...	...	...	...
72. DBED M-K (1984)	79.2	91.7	101.4	106.5	...
73. DBED M-K prelim. (1988)	77.4	91.3	105.1	118.5	134.4
75. DBED M-K rev. (1988)	76.5	88.7	102.7	116.8	132.8
Actual number (February)	72.2	...	...	...	...
Hotel employment:					
57. DPED (1974) 4/	55.0	...	58.0	...	49.0
64. DPED State Plan (1977)	41.7	...	...	...	...
65. DPED II-F (1978)	39.3	43.4	45.7	...	...
66. DPED Tourism Study (1978)	34.8	40.0	...	...	...
72. DPED M-F (1984)	31.8	35.0	36.9	37.1	...
73. DBED M-K prel. (1988)	34.6	38.0	41.1	43.5	46.0
75. DBED M-K rev. (1988)	34.5	38.1	41.3	43.7	46.3
78. BEA (1990) 5/	...	46.9	52.2	56.2	58.9
Actual number	38.8	...	...	...	...

1/ 7 to 8 million.

2/ Projections refer to 1999.

3/ Includes condominium units in rental pools for transient occupancy.

4/ Also projected for 2020 (41.3).

5/ Also projected for 2020 (60.3) and 2040 (61.4).

Source: Reports cited in Hawaii Department of Planning and Research, Visitor and Hotel Room Projections for Hawaii, 1948-1980 (Research Report 29, August 2, 1962); Robert C. Schmitt, "Forecasting Tourism in Hawaii," paper presented to the Hawaii Chapter, American Statistical Association, October 2, 1969; Hawaii State Department of Planning and Economic Development, Bibliography of Tourism Projections Issued Since 1969 (Statistical Report 117, November 12, 1976) and Bibliography of Tourism Projections Issued Since 1976 (Statistical Report 158, January 21, 1983); present bibliography.